TABLE 2-1 (Continued)

Compression Softening	*Models lowering of concrete strength with increasing transverse tensile strain* There are many models here. For normal strength concrete, the Vecchio-Collins 1986 model is suggested. For very high strength concrete (>90 MPa), the Porasz-Collins 1989 model is recommended.

None	No change in compressive capacity with tensile strain *This option does not model concrete well*
Vecchio-Collins 1982	Equation proposed by Vecchio, Ref 3 *This works well for normal and low strength concrete*
Vecchio-Collins 1986	Equation proposed by Vecchio/Collins, Ref 1 *This is a simplification of the above equation: Recommended*
Vecchio-Collins 92-A	Equation proposed by Vecchio/Collins, Ref 6 *This is a new fit to the data. Comparable to the 1982 eq.*
Vecchio-Collins 92-B	Equation proposed by Vecchio/Collins, Ref 6 *This is a new fit to the data. Comparable to the 1986 eq.*
Mehlhorn et al	Equation proposed by Mehlhorn et al, Ref 7 *This does not model concrete well for high strains*
Maekawa et al	Equation proposed by Maekawa, et al 8
Noguchi et al	Equation proposed by Noguchi, et al 9
Belarbi-Hsu proportional	Rotating Angle Softened Truss Model Relation Ref 10. If this is selected with Tamai tension stiffening, program runs in RA-STM mode.
CAN CSA S474	Offshore Code. Like V-C '86 but Not a function of e0
Collins 1978	Compression Field Theory Equation Ref 11.
Kaufmann-Marti 1998	Equation proposed by Kaufmann and Marti Ref 12 *This is fit to many RC panels from Canada/Japan/USA*
Porasz-Collins 1988	Equation proposed by Porasz and Collins Ref 13 *Recommended method for very high strength concrete*
Hsu-Zhang 1998	Model of RA-STM 98 and FA-STM98. Ref 14 *Concrete crushes early in this model. Not recommended*
Hsu 1993	Another model from the Houston RA-STM. Ref 15

Tension Stiffening	*Models the post cracking tensile strength in reinforced/prestressed concrete* The Bentz-1999 model is suggested.

None	Ignore post cracking tension stiffening
Vecchio-Collins 1982	Equation proposed by Vecchio Ref 3
Collins-Mitchell 1987	Equation proposed in 1987 textbook Ref 16 *Suggested Equation if Bentz 1999 method not used*
Izumo et al	Equation proposed by Izumo et al 17
Tamai et al	Tamai, also used by Hsu models 18
Elasto-Plastic	Full cracking stress at any strain after cracking
Bentz 1999	Tension stiffening based on strain and distance to steel *See Reference 2 to find out how this works*

Reinforcement Detailed Definition